

Abstract

A process for producing glucose dehydrogenases. This process comprises transferring a DNA containing a sequence represented by SEQ ID NO:1 which encodes an α subunit having a glucose dehydrogenase activity and a β subunit being an electron transfer protein into a microorganism belonging to the genus *Pseudomonas* to thereby construct a transformant, and culturing this transformant so as to allow the production of a first glucose dehydrogenase containing the above-described β subunit and a second glucose dehydrogenase free from the β subunit. The α subunit as described above has a molecular weight of about 60 kDa measured by, for example, SDS-polyacrylamide gel electrophoresis under reducing conditions, while the β subunit as described above has a molecular weight of about 43 kDa measured by, for example, SDS-polyacrylamide gel electrophoresis under reducing conditions.

ABSTRACT

This invention relates to a process for preparing glucose dehydrogenase. The preparation process comprises introducing
5 the DNA containing the sequence described in SEQ ID NO.: 1 coding for the α subunit, which has a glucose dehydrogenase activity, and the β subunit, which is an electron-transfer protein, into a microorganism belonging to the genus *Pseudomonas* to create a transformant, and culturing this transformant to produce a
10 first glucose dehydrogenase containing the β subunit and a second glucose dehydrogenase not containing the β subunit. The α subunit has a molecular weight of approximately 60kDa for example as determined by SDS-polyacrylamide gel electrophoresis under reducing conditions. The β subunit has a molecular weight of
15 approximately 43kDa for example as determined by SDS-polyacrylamide gel electrophoresis under reducing conditions.